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10/588,010	08/01/2006	Alessandro Morelli	6759/PC/T	1241
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DESAL, HEMANT				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/588,010

**Applicant(s)**

MORELLI ET AL.

**Examiner**

Hemant M. Desai

**Art Unit**

3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-46 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 21-46 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 21-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks (3229974) in view of Wingate (5064180).

Banks discloses a folding machine to fold a web material along transverse folding lines comprising at least one folding cylinder (27, 28, fig. 1) equipped with at least one gripping member (34, 37) to grasp the web material along a folding line.

Banks does not disclose an electrostatic system to attract the web material in the groove. However, Wingate discloses that it is well known in the art to provide an electrostatic system (4-10, 16-17, 35, figs. 1-2) to attract the web material to eliminate moving mechanical parts, to reduce noise and to achieve an improved accuracy of transfer of the signature (see col. 1, lines 49-55). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the folding machine of Banks with the electrostatic system of Wingate to attract the web material into the groove to eliminate moving mechanical parts, to reduce noise and to achieve an improved accuracy of transfer of the signature.

Regarding claims 22 and 43, the modified folding machine of Banks teaches a system (16, 17, fig. 1 of Wingate) to electrostatically charge the web material before the web material reaches the gripping member.

Regarding claims 23-24 and 44-45, the modified folding machine of Yamauchi teaches that the two folding cylinders having parallel axes are present in counter-rotating relation to each other, each of said two folding cylinders being equipped with a gripping member with the electrostatic system.

Regarding claims 25-27, Banks discloses that the at least one gripping member comprises a movable element (via 34 and 37) cooperating with a first stop (Fig. 2; via surface 42) and second stop (via surface 33); the first stop and second stop defining a slot essentially parallel to an axis of rotation of a respective folding roller of the at least one folding roller (Figs. 1 and 2), the movable element (34) extending in the slit.

Regarding claim 28, as mentioned above, the modified folding machine of Banks meets all the claimed limitations. Note that, Wingate teaches retaining members (3-10, fig. 1), kept at an electrostatic potential to cause attraction of the web. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide retaining members, kept at an electrostatic potential in the cavity of folding cylinder of Banks as taught by Wingate to cause attraction of the web.

Regarding claims 29 and 30, Banks discloses that a first block defining the first stop is fixed in the cavity (via portion of surface 42, could be consider as block) and a second block defining the second stop (via 33).

Regarding claim 31, the folding machine of Banks discloses that each of the at least one gripping member includes an elastic plate (rubber jaw 34).

Regarding claim 32, the folding machine of Banks discloses a cutting unit (4, 6) associated with the folding cylinder to cut the web material into individual sheets.

Regarding claim 33, the folding machine of Banks discloses that the cutting unit comprises two cylinders (6, 4) with axes parallel to each other and to a respective one of the at least one folding cylinder, the two cylinders being counter-rotating and defining therebetween a nip through which the web material passes, and the two cylinders being equipped with blades and counter-blades to cut the web material, and wherein one of the two cylinders forming the cutting unit form together with the at least one folding cylinder a nip through which the cut web material passes.

Regarding claims 34-36, the folding machine of Banks discloses that the folding cylinder cooperates with a counter-cylinder, on which a boss (38) is provided, extending parallel to the axis of the cylinder, the boss being phased with respect to the at least one gripping member to facilitate folding of the web material.

Regarding claims 37 and 46, Banks discloses a method for folding a web material along transverse folding lines, comprising, arranging at least one folding cylinder (27, 28), providing on the folding cylinder at least one gripping member (34, 37) and at least one cavity (42, 44), arranging the at least one cavity essentially parallel to an axis of rotation of the cylinder and opening onto a cylindrical surface of the at least one folding cylinder, providing and housing the at least one gripping member and retaining member (34, 33) inside the at least one cavity to grasp the web material along

a folding line, and inserting the web material into the at least one cavity and the at least one gripping member.

Banks does not disclose an electrostatic system to attract the web material in the groove. However, Wingate discloses that it is well known in the art to provide an electrostatic system (4-10, 16-17, 35, figs. 1-2) to attract the web material to eliminate moving mechanical parts, to reduce noise and to achieve an improved accuracy of transfer and grip of the signature (see col. 1, lines 49-55). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the folding machine of Banks with the electrostatic system of Wingate to attract the web material into the groove to eliminate moving mechanical parts, to reduce noise and to achieve an improved accuracy of transfer of the signature.

Regarding claim 38, Banks discloses that the two folding cylinders with parallel axes in counter-rotating relationship and defining a nip through which the web material is made to pass, each of the folding cylinder being equipped with the gripping member, and engaging the web material alternately with a respective one of the at least one gripping member of a first one of the at least one folding cylinder and with a respective one of the at least one gripping member of a second one of said at least one folding cylinder, to fold said web material with a zigzag configuration (see fig. 1).

Regarding claim 39, Banks discloses that the web material is gripped between a stop fixed with respect to a respective one of the at least one folding cylinder and a movable element.

Regarding claim 40, Banks discloses that folding is facilitated in the web material in front of the at least one gripping member.

Regarding claim 41, Banks discloses that, the folding is facilitated by a boss (35) provided on a cylinder positioned opposite the at least one folding cylinder.

Regarding claim 42, Banks discloses that, the at least one gripping member does not cooperate mechanically with the boss.

### ***Response to Arguments***

3. Applicant's arguments filed on 10/9/2008 have been fully considered but they are not persuasive.

In response to applicant's argument that "Wingate upon combination with Banks does not make up for the shortcomings of Banks to provide the invention as claimed.". Note that Banks, as explained in the above rejection, discloses all the claimed limitations. Banks discloses tuckers (35, 38) to insert the web into the grippers to fold the web. Banks does not disclose an electrostatic system to insert (attract) the web material into the grippers. However, Wingate discloses that it is well known in the art to provide an electrostatic system (4-10, 16-17, 35, figs. 1-2) to attract the web material (which is being electrostatically charged by the bars 16-17) to eliminate moving mechanical parts, to reduce noise and to achieve an improved accuracy of transfer of the signature (see col. 1, lines 49-55). The substitution of one known element (electrostatic system to attract/insert the web material of Wingate) for another (tuckers as shown by Banks to insert the sheet into the grippers) would have been obvious to one of ordinary skill in the art at the time of the invention since the substitution of

electrostatic system of Wingate would have yielded predictable results, namely, insertion/attraction of the web material into the grippers of Banks to fold the web and to eliminate moving mechanical parts, to reduce noise and to achieve an improved accuracy of transfer of the signature.

In response to Applicant's argument that Wingate does not relate to folding machines, but rather to a diverter machine. It has been held that the determination that a reference is from a nonanalogous art is twofold. First, we decide if the reference is within the field of the inventor's endeavor. If it is not, we proceed to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved. In re Wood, 202 USPQ 171, 174. In this case Wingate discloses that it is well known in the art to provide an electrostatic system (4-10, 16-17, 35, figs. 1-2) to attract the web material (which is being electrostatically charged by the bars 16-17). Therefore, the reference is within the field of the inventor's endeavor.

In response to Applicant's argument that "The electrostatic charge is the only force acting on the signatures and is the only force necessary to solve the problem recognized by Wingate. There is no teaching or suggestion in Wingate that electrostatic attraction can be used to cause a web to enter a cavity in a rotating roller".... and so on pages 3-5. Note that, Banks discloses the grippers (mechanical parts) to grip the web material. Examiner is only relying on the Wingate reference to show an electrostatic system (4-10, 16-17, 35, figs. 1-2) to attract the web material. And therefore, would have been obvious to substitute of one known element (electrostatic system to attract/insert the web material of Wingate) for another (tuckers as shown by Banks to



insert the sheet into the grippers) since the substitution of electrostatic system of Wingate would have yielded predictable results, namely, insertion/attraction of the web material into the grippers of Banks to fold the web and to eliminate moving mechanical parts, to reduce noise and to achieve an improved accuracy of transfer of the signature.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hemant M. Desai whose telephone number is (571) 272-4458. The examiner can normally be reached on 6:30 AM-5:00 PM, Mon-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hemant M Desai/  
Primary Examiner, Art Unit 3721